ARBORICULTURAL ASSESSMENT
& REPORT FOR:

1435 THOMPSONS ROAD,

CRANBOURNE NORTH

Report Commissioned By:
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1 Key Objectives

1.1 To inspect the site in question and individually assess the existing trees nominated by the client. The site is identified as 1435 Thompsons Road, Cranbourne North.

1.2 To provide information on the species, dimensions, condition and associated relevant criteria of the trees.

1.3 To offer recommendations where necessary, concerning the future management of the nominated trees.

2 Methodology

2.1 The site inspection was undertaken on Wednesday 13 and Thursday 14 October 2004.

2.2 The nominated trees were inspected from the ground and observations made of the growing environment and the surrounding area.

2.3 Several trees within the subject areas not appearing on the site feature survey plans were not assessed. These trees were considered typical examples of the stand, being either dead or in decline and their inclusion in tis report was deemed unnecessary due to their lack of landscape value.

2.4 Observations were made of the nominated trees to determine age, structure and condition and other factors identified in this report with measurements taken to establish canopy and trunk dimensions.

2.5 Relevant photographs were taken to be included in this report.

3 Executive Summary

An arboricultural inspection of 322 tree features within the subject site, 318 of which formed part of a naturally occurring indigenous woodland remnant within the site, found the majority of tree features to be of poor landscape value.

The forest remnant of which the trees were part of as a whole was in a state of chronic decline with the majority of specimens either dead of dying. Ecologically the greater stand of trees was valuable; however their value as landscape specimens was low overall. Based on their current condition 308 of the 320 tree features assessed were recommended for removal.

4 Introduction

Incorporating trees into new urban development can strengthen existing site character, and where practical the preservation of trees in an evolving urban landscape is important consideration in the maintenance of dominant landscape character elements.

Good tree management on a development site commences with the assessment of existing vegetation as part of the planning and design phase to determine which trees are in a condition and contribute to the landscape character sufficiently to be considered suitable for retention. The dynamic nature of trees requires that sufficient space within the built environment be provided for continued tree development. Moreover, retained trees require protection from development activity for the duration of the project to ensure their viability beyond the development completion date.

5 Observations

5.1 322 individual tree features were identified representing 7 species, 6 of which were indigenous and included 3 Cherry Ballart (*Exocarpus cupressiformis*), 1 Wallangarra White Gum (*Eucalyptus scoparia*) Wallangarra White Gum (*Eucalyptus scoparia*)1 Kangaroo Thorn (Acacia paradoxa), 1 Blackwood (A*cacia melanoxylon*), 2 Black She-oaks (*Allocasuarina littoralis*), 124 Narrow-leaved Peppermint (*Eucalyptus* radiata), and 62 Gippsland Manna Gum (*Eucalyptus pryoriana*).

5.2 Of the 322 tree features assessed 129 were dead; this figure including 34 stumps.

5.3 The site was currently used for raising livestock. With the exception of tree 1, a planted Wallangarra White Gum (*Eucalyptus scoparia*), the remaining trees were indigenous components of a remnant fragment of grassy low open forest.

5.4 For full detail of individual tree assessments refer to Appendix 1.

6 Discussion

6.1 The Value of Trees in an Urban Setting

Established trees can contribute significantly to the appearance and value of a completed development; however tree retention for retentions sake is a pointless pursuit if the tree will not be a viable longer term landscape component. Trees are useful in an urban landscape if they provide a positive contribution to the landscape. They become less useful as maintenance costs become excessive and when they begin to have a negative effect on landscape amenity.

The decision to retain existing trees within a development relies on the assessment of the numerous criteria to establish the existing conditions of the tree and its potential to be a viable landscape component in the longer term. Whilst a tree's visual contribution to the landscape or environment is considered, issues such as tree health, structure, and stability are fundamental and primary criteria in the process of identifying trees that could potentially be retained in the longer term. These attributes are assessed using risk management concepts as a platform; the synthesis and interpretation of this of this data is used to assist with determining the retention value of individual trees.

6.2 Tree retention Values

The objective of the tree assessment is to highlight the better trees on or adjacent a site and to identify trees in poor condition, or less significant trees. The following arboricultural criteria were applied when determining the tree's suitability for retention.

- Trees that were a good horticultural or genetic example of the species
- Trees that were considered to be of historical or botanical significance
- The specimen was of a reasonably healthy in condition that would allow it to tolerate development associated modifications to its growing environment
- The specimen has a structure that is not predisposed to potential failure that could cause damage or injury
- The specimen will contribute to the amenity of the site in the longer term

In any tree assessment, it is common to find a range of trees with differing attributes for health, structure and overall landscape value. Trees that were in poor health, had suspect or deficient structure or were subject to pest or disease infestation that was having an observable impact on tree condition were generally not considered suitable for retention. In addition trees within the property that were recognised environmental weeds were not considered suitable for retention. However some trees although they may be considered insignificant for their size, age, or species type, could still possibly be considered for retention, simply because their health and structure are reasonable and where site constraints allow.

6.3 Tree Preservation on Development Sites

The successful retention of trees on any particular site will require the commitment and understanding of all parties involved in the development process with continuity throughout the duration of the project. To aid the successful preservation of retained trees potentially impacted upon by development, consideration must be given to protecting the crown, trunk and roots of a tree. Tree Protection Zones (TPZs) are used to provide adequate space for the preservation of sufficient roots to maintain tree health (particularly important for mature trees), whilst providing a buffer zone between construction activity and the tree.

The British Standard (BS 5837-1991) Guide for Trees in relation to construction provides and easily interpreted method for establishing tree protection zones when plans are viewed and site visits are conducted. Treelogic has adopted the alternative method of determining tree protection zones outlined in British Standard 5837, 1991, Guide for Trees in relation to construction (British Standards Institute 1991), which discussed and illustrated in Appendix 5. The method provides information relevant to establishing a tree protection zone and tree protection fencing distances by using the width of the canopy or half the height of the tree, whichever is greater. A reduction of one third of the clearance distance is permitted on one side of the tree only, so long as additional clearance can be provided in all other directions. Tree protection distances for all trees, referred to as TPZs, have been included in appendix one.

The essential part of any root system to be protected during development or excavation is directly around the base of the tree and the emerging root crown, also known as the root plate radius - RPR (often incorrectly referred to as the Critical Root Zone). This area extends from the root crown at the base of the tree radially out to include the area where major structural roots occur and ends where these roots taper and lateral growth of absorbing roots predominate. The RPR is vital to the stability of the tree and if significant roots are damaged within this distance tree failure may occur. The RPR should never be considered as a minimum clearance distance to maintain tree health (Mattheck & Breloer, 1997) as it relates only to maintaining tree stability.

6.4 Tree Assessment Response

The site was comprised predominately of a mixed age stand of indigenous trees that formed the outer fringe of a fragment of remnant grassy low open woodland retained on a hill within the subject property. The greater stand of trees was clearly in a state of chronic decline evidenced by the overall poor tree health and structural integrity.

Few trees were worth retaining within a residential development. No trees attracted a High retention value and of the 322 tree features assessed, only 12 attracted a moderate retention value. The remaining trees were either structurally flawed and/or in various stages of decline and attracted a Low or no retention value.

The poor health of trees was not confined to any specific age class with semi-mature, maturing and senescent trees showing a set of similar symptoms that included dieback of the crown most often resulting in an emergent head of dead branches (stag headed), and a crown comprised largely of epicormic foliage.

Aside from the inherent structural faults observed in some trees, numerous specimens appeared to have developed form stumps, evidenced by their multi-stemmed habit often accompanied by a decayed stump at the centre of the base of the tree. Dieback leading to decay hade also influenced the structural integrity of affected trees.

Dead trees throughout the site whether semi-mature or senescent were in various stages of deterioration supported the inference that the stand had been in a state of chronic decline. The trees as a group were considered to have greater ecological value than landscape amenity value of the stand or individual trees with numerous nesting holes observed primarily in the dead trees and stumps on site.

Several trees were in the later stages of maturity. Most of these trees were in a poor state of health or had structural deficiencies. Few exceptions occurred and generally these trees attracted a Low retention rating as they were not considered potential longer term site components, and would not be expected to tolerate changes to their growing environment.

No trees were rated as hazardous primarily because no persons or property (targets) were located within the fall zones of trees with structural faults that were considered imminent failure points and therefore the risk of hitting a target was considered extremely low.

The retention of any tree on the site will involve commitment to providing care and maintenance during any future development process. This commitment should begin predevelopment and extend post development. Being a natural unmanaged stand the trees received no pruning maintenance, if retained within a site development; the need for some form of tree pruning maintenance may exist. The Australian Standard *AS4373-1996 Pruning of amenity trees* (Standards Australia 1996) provides detail of the accepted pruning techniques that should be employed in such circumstances to improve the general appearance of and where applicable safety of retained trees.

7 Conclusions & Recommendations

The overall condition of the trees on site was poor and appeared not to be improving. Few trees were worth considering retaining in a future site development.

7.1 **Moderate retention value trees.** Twelve trees (12) appearing in table 1 below were identified as having moderate retention values. These trees contribute to the overall amenity of the existing site, should survive the rigours of site development and have the potential to add value to the redeveloped site.

Table 1: Trees assessed as having a Moderate Retention Value

No	Species	Type	DBH (cm)	H x W (m)	Age Class	TPZ (N/A)
1	*Eucalyptus ?scoparia*	Indigenous	~35	11x12E/W 12N/S	Semi-mature	6
25	*Exocarpus cupressiformis*	Indigenous	37	8x7E/W 8N/S	Maturing	4
44	*Eucalyptus pryoriana*	Indigenous	60	16x15N/S 11E/W	Maturing	8
45	*Eucalyptus pryoriana*	Indigenous	54	17x12N/S 9E/W	Maturing	8.5
82	*Eucalyptus radiata*	Indigenous	*37	12x9E/W 12N/S	Maturing	6
96	*Eucalyptus pryoriana*	Indigenous	21	6x7E/W 5N/S	Semi-mature	3.5E/W3N/S
164	*Eucalyptus radiata*	Indigenous	66	10E/W	Maturing	8
183	*Eucalyptus radiata*	Indigenous	35	9N/S	Maturing	5.5
187	*Eucalyptus radiata*	Indigenous	*36	6x3E/W	Semi-mature	5
191	*Eucalyptus radiata*	Indigenous	25	16x9N/S	Semi-mature	5.5
216	*Eucalyptus radiata*	Indigenous	24	11x9E/W	Semi-mature	3.5
307	*Eucalyptus pryoriana*	Indigenous	59	11x6	Maturing	7E/W 7.5N/S

7.2 **Low retention value trees.** One hundred and thirty-two (132) individual trees were identified as having a low retention value. The potential for these trees to be a viable asset to the site is remote and consideration should be given to their removal.

7.3 **No retention value trees.** The remaining one hundred and seventy seven (177) individual trees including all dead trees and stumps were identified as having no retention value. There was no potential for these trees to be a viable asset to the site and these trees should be removed

7.4 An obvious health issue amongst the stand, primarily the declining nature of most of the tree, was recognised and is expected to limit the time over which the information gathered for individual trees is valid, as it is expected that tree health overall will continue to decline. A review of tree condition should be undertaken prior to any future plans that consider retaining the trees within a development whereby the development commences later than 18 months from the date of this assessment.

7.5 Trees retained within a development may require some form of crown maintenance or crown modification pruning got improve their safety and amenity value. Any pruning undertaken should conform to The Australian Standard *AS4373-1996 Pruning of amenity trees* (Standards Australia 1996).

7.6 Any trees retained will require protection for the duration of any site development. The establishment of tree protection zones and implementation of general tree protection guidelines will be fundamental to their successful retention.

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8 References

British Standard 5837. (1991), *Guide for Trees in relation to construction*. British Standards Institute.
Gilman, E.F. (1997), Trees for Urban and Suburban Landscapes, Delmar

Mattheck, C. & Breloer, H. (1994) *The body language of trees – A handbook for failure analysis*, The Stationery Office, London.

Standards Australia (1996), *AS4373-1996 Pruning of amenity trees*. Standards Australia

Appendix 1 Tree Assessment Details

No	Species Name	Common Name	Type	DBH (cm)	H x W (m)	Age Class	Health	Structure	Form	TPZ (N/A)	Comment	Retention	Recommend
1	*Eucalyptus ?scoparia*	Wallangarra White Gum	Indigenous	~35	11x12E/W 12N/S	Semi-mature	Fair	Poor	Dominant Symmetric	6		Moderate	Could be retained
2	*Acacia melanoxylon*	Blackwood	Indigenous	87	10x10E/W 14N/S	Senescent	Poor	Poor	Dominant Asymmetric	5E/W 7N/S	advanced decline; trunk split	None	Remove
3	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*63	13x8E/W 9N/S	Maturing	Poor	Poor	Dominant Symmetric	6.5	advanced decline; Epicormic crown; Stag headed;	None	Remove
4	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	30	9x6E/W 7N/S	Semi-mature	Poor	Poor	Dominant Symmetric	4.5	decline; Epicormic crown; Stag headed; Basal Decay & cavity;	Low	Remove
5	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	37	11x9E/W 7N/S	Semi-mature	Poor	Poor	Dominant Symmetric	5.5	dieback; Epicormic ; Stag headed; Basal Decay & cavity;	Low	Remove
6	*Eucalyptus sp.*	Gum tree	N/A	*61	13x13	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
7	*Eucalyptus sp.*	Gum tree	N/A	43	12x8	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
8	*Eucalyptus sp.*	Gum tree	N/A	34	9x9	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
9	*Eucalyptus sp.*	Gum tree	N/A	44@ 120	9x12	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
10	*Eucalyptus sp.*	Gum tree	N/A	*35	9x9	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
11	*Eucalyptus sp.*	Gum tree	N/A	37	12x9	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
12	*Eucalyptus sp.*	Gum tree	N/A	27	10x5	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
13	*Eucalyptus sp.*	Gum tree	N/A	36	11x4	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
14	*Eucalyptus sp.*	Gum tree	N/A	*59	12x12	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove

No	Species Name	Common Name	Type	DBH (cm)	H x W (m)	Age Class	Health	Structure	Form	TPZ (N/A)	Comment	Retention	Recommend
15	*Eucalyptus sp.*	Gum tree	N/A	37	10x7	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
16	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	60	14x10N/S 11E/W	Maturing	Poor	Poor	Dominant Symmetric	7	Stag headed; Borer; Epicormic crown;	None	Remove
17	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	~110	15x23E/W	Senescent	Fair	Fair	Dominant Symmetric	12.5	Late maturity	Low	Remove
18	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	59	15x11N/S 12E/W	Maturing	Poor	Poor	Dominant Symmetric	7.5	Stag headed; Epicormic crown;	None	Remove
19	*Eucalyptus sp.*	Gum tree	N/A	70	16x15	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
20	*Eucalyptus sp.*	Gum tree	N/A	*52	11x8	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
21	*Eucalyptus sp.*	Gum tree	N/A	53	13x12	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
22	*Eucalyptus sp.*	Gum tree	N/A	35	6x7	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
23	*Eucalyptus sp.*	Gum tree	N/A	36	8x7	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
24	*Eucalyptus sp.*	Gum tree	N/A	28	6x5	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
25	*Exocarpus cupressiformis*	Cherry Ballart	Indigenous	37	8x7E/W 8N/S	Maturing	Fair	Good	Dominant Symmetric	4		Moderate	Could be retained
26	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	~50	14x12E/W 12 N/S	Maturing	Fair to Poor	Fair	Dominant Symmetric	7		Low	Remove
27	*Eucalyptus sp.*	Gum tree	N/A	19	6x5	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
28	*Eucalyptus sp.*	Gum tree	N/A	31	11x6	N/A	Dead	N/A	N/A		N/A	None	Remove
29	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	*74	12x13E/W 9N/S	Maturing	Poor	Poor	Dominant Symmetric	6N/S 6.5 E/W	advanced decline;	None	Remove
30	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*50	11x11E/W 11N/S	Maturing	Poor	Poor	Dominant Asymmetric	5.5	Decline	Low	Remove
31	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	37	10x10E/W 9N/S	Semi-mature	Poor	Fair to Poor	Dominant Symmetric	5	decline; Epicormic crown; Stag headed;	Low	Remove

No	Species Name	Common Name	Type	DBH (cm)	H x W (m)	Age Class	Health	Structure	Form	TPZ (N/A)	Comment	Retention	Recommend
32	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	43	9x9N/S 9E/W	Maturing	Poor	Poor	Dominant Asymmetric	4.5	Advanced Decline	None	Remove
33	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	30	6x6N/S 6E/W	Semi-mature	Poor	Poor	Dominant Asymmetric	3	Advanced Decline	None	Remove
34	*Eucalyptus sp.*	Gum tree	N/A	*26	7x5	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
35	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	20	7x6N/S 6E/W	Semi-mature	Poor	Poor	Codominant symmetric	3.5.	advanced decline; Epicormic crown; Stag headed;	None	Remove
36	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	25	7x5N/S 5E/W	Semi-mature	Poor	Fair	Codominant symmetric	3.5	decline; Epicormic crown; Stag headed;	Low	Remove
37	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*33	7x8N/S 5E/W	Semi-mature	Poor	Poor	Suppressed	4N/S 3.5E/W	Epicormic crown; decline; Stag headed;	Low	Remove
38	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	54	10x10N/S 12E/W	Maturing	Fair	Fair to Poor	Dominant Symmetric	5N/S 6E/W	Head failure; late maturity	Low	Remove
39	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	25	10x5N/S 5E/W	Semi-mature	Poor	Poor	Intermediate	5	Epicormic crown; decline;	Low	Remove
40	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	39	15x5N/S 5E/W	Semi-mature	Fair to Poor	Poor	Dominant Symmetric	7.5	dieback Epicormic crown;	Low	Remove
41	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	33	7x6N/S 8E/W	Semi-mature	Poor	Poor	Codominant Asymmetric	3.5N/S 4E/W	Epicormic crown; advanced decline;	None	Remove
42	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	48	16x7N/S 6E/W	Maturing	Poor	Poor	Dominant Symmetric	8	Epicormic crown; advanced decline; Stag headed;	None	Remove

No	Species Name	Common Name	Type	DBH (cm)	H x W (m)	Age Class	Health	Structure	Form	TPZ (N/A)	Comment	Retention	Recommend
43	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	43	13x7N/S 7E/W	Maturing	Poor	Poor	Codominant Asymmetric	6.5	Epicormic crown; decline;	Low	Remove
44	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	60	16x15N/S 11E/W	Maturing	Fair	Fair	Codominant Asymmetric	8	deadwood; late maturity	Moderate	Could be retained
45	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	54	17x12N/S 9E/W	Maturing	Fair	Fair	Codominant Asymmetric	8.5	deadwood; late maturity	Moderate	Could be retained
46	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	63	17x13N/S 8E/W	Semi-mature	Poor	Poor	Dominant Asymmetric	8.5	Epicormic crown; decline;	Low	Remove
47	*Eucalyptus sp.*	Gum tree	N/A	41	15x6	N/A	Dead	N/A	N/A	7.5	N/A	None	Remove
48	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	29	10x4N/S 4E/W	Semi-mature	Poor	Poor	Intermediate	5	Stag headed; Epicormic crown;	Low	Remove
49	*Eucalyptus sp.*	Gum tree	N/A	36	10x4	N/A	Dead	N/A	N/A	N/A5	N/A	None	Remove
50	*Eucalyptus sp.*	Gum tree	N/A	42	15x8	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
51	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	17	7x5N/S 5E/W	Semi-mature	Poor	Poor	Codominant Asymmetric	3.5		Low	Remove
52	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	23	7x8E/W 7N/S	Semi-mature	Fair to Poor	Fair	Intermediate	3.5N/S 4E/W	Epicormic crown;	Low	Remove
53	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	52	14x7N/S 7E/W	Maturing	Fair to Poor	Fair to Poor	Codominant Asymmetric	7	Stag headed; Epicormic crown; decline;	Low	Remove
54	Stump	N/A	N/A	N/A	N/A	N/A	Dead	N/A	N/A	N/A		None	Remove
55	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	27	6x6E/W 6N/S	Semi-mature	Fair to Poor	Poor	Suppressed	3	decline; Epicormic crown;	Low	Remove
56	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	46	14x12E/W 11N/S	Maturing	Fair to Poor	Fair to Poor	Codominant Asymmetric	7	Stag headed; Epicormic crown; decline;	Low	Remove

No	Species Name	Common Name	Type	DBH (cm)	H x W (m)	Age Class	Health	Structure	Form	TPZ (N/A)	Comment	Retention	Recommend
57	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	47	13x8N/S 8E/W	Semi-mature	Fair	Poor	Codominant Asymmetric	7.5	Epicormic crown; decline;	Low	Remove
58	*Eucalyptus sp.*	Gum tree	N/A	36	15x7	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
59	*Eucalyptus sp.*	Gum tree	N/A	36	13x5	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
60	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	*60	18x9E/W 13N/S	Maturing	Fair to Poor	Fair	Dominant Asymmetric	9	Epicormic crown; decline;	Low	Remove
61	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	*60	17x12E/W 7N/S	Maturing	Poor	Poor	Dominant Asymmetric	8.5	Epicormic crown; Stag headed; advanced decline;	None	Remove
62	*Eucalyptus sp.*	Gum tree	N/A	*47	12x8	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
63	*Eucalyptus sp.*	Gum tree	N/A	29	8x5	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
64	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*49	14x8N/S 7E/W	Maturing	Poor	Poor	Codominant symmetric	7	Epicormic crown; Stag headed; advanced decline;	None	Remove
65	*Eucalyptus sp.*	Gum tree	N/A	*38	10x6	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
66	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*60	10x15N/S 10E/W	Maturing	Poor	Poor	Codominant asymmetric	7.5N/S 5E/W	Epicormic crown; decline; Multi limb failure	Low	Remove
67	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	40	9x9N/S 7E/W	Maturing	Poor	Poor	Codominant asymmetric	4.5	Epicormic crown; decline;	Low	Remove
68	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*78	15x15N/S 15E/W	Senescent	Poor	Poor	dominant symmetric	7.5	Epicormic crown; ; advanced decline; Stag headed;	None	Remove
69	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	25	4x6N/S 6E/W	Semi-mature	Fair	Poor	Suppressed	3	~45 degree lean Basal Cavity;	Low	Remove

No	Species Name	Common Name	Type	DBH (cm)	H x W (m)	Age Class	Health	Structure	Form	TPZ (N/A)	Comment	Retention	Recommend
70	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	27	11x6N/S 6E/W	Semi-mature	Fair	Poor	Codominant symmetric	5.5		Low	Remove
71	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	65	18x14N/S 14E/W	Maturing	Poor	Fair to Poor	Dominant Symmetric	9	Epicormic crown; advanced decline;	None	Remove
72	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	40	10x9N/S 9E/W	Maturing	Fair	Fair to poor	Suppressed	5	south lean	Low	Remove
73	*Eucalyptus sp.*	Gum tree	N/A	76	6x5	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
74	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	49	16x8E/W 12N/S	Maturing	Fair	Fair	Codominant Asymmetric	8	Epicormic crown; decline;	Low	Remove
75	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	*53	14x13E/W 10N/S	Maturing	Fair	Poor	Codominant Asymmetric	7	Stag headed; decline;	Low	Remove
76	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	55	18x11N/S 10E/W	Maturing	Poor	Fair to Poor	Dominant Asymmetric	9	decline;	Low	Remove
77	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	40	16x11E/W 11N/S	Maturing	Poor	Poor	codominant Asymmetric	8	advanced decline; Stag headed;	None	Remove
78	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	40	13x7N/S 8E/W	Maturing	Poor	Poor	Codominant Asymmetric	6.5	decline;	Low	Remove
79	*Eucalyptus sp.*	Gum tree	N/A	40	17x7	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
80	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*56	13x7N/S 8E/W	Maturing	Poor	Poor	Dominant Symmetric	6.5	decline; Stag headed; Epicormic crown;	Low	Remove
81	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	39	11x7E/W 9N/S	Maturing	Fair	Fair to Poor	Dominant Asymmetric	5.5	Overextend limb; Limb failure decline; Borer;	Low	Remove

No	Species Name	Common Name	Type	DBH (cm)	H x W (m)	Age Class	Health	Structure	Form	TPZ (N/A)	Comment	Retention	Recommend
82	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*37	12x9E/W 12N/S	Maturing	Fair	Fair	Dominant Asymmetric	6	basal bifurcation; Dieback	Moderate	Could be retained
83	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	26	4x5N/S 5E/W	Semi-mature	Fair	Fair	Suppressed	2.5	Dieback	Low	Remove
84	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*30	12x7E/W 8N/S	Semi-mature	Fair to Poor	Fair	Intermediate	6	Dieback	Low	Remove
85	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	43	16x5E/W 6N/S	Maturing	Fair to Poor	Fair to Poor	Dominant Symmetric	8	Stag headed; Epicormic crown;	Low	Remove
86	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	No tree	N/A	N/A
87	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*45	9x10N/S 5E/W	Maturing	Poor	Poor	Codominant Asymmetric	5N/S 4.5E/W	Decline; Basal Cavity; Stag headed; Epicormic crown;	Low	Remove
88	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	*39	9x8E/W 10N/S	Maturing	Poor	Poor	Suppressed	4.5E/W 5N/S	advanced decline; Stag headed;	None	Remove
89	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*38	11x12E/W 11N/S	Maturing	Fair	Fair	Codominant Asymmetric	5.5N/S 6 E/W	basal bifurcation Dieback	Low	Remove
90	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	72	17x17N/S 9E/W	Senescent	Poor	Poor	Dominant Asymmetric	8.5	Decline;	Low	Remove
91	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	20	8x4N/S 4E/W	Semi-mature	Fair to Poor	Fair	Intermediate	4	Dieback	Low	Remove
92	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*24	8x4N/S 7E/W	Semi-mature	Fair to Poor	Poor	Intermediate	4	Dieback Basal cavity	Low	Remove
93	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	36	13x12N/S 9E/W	Maturing	Poor	Poor	Intermediate	6.5	Dieback; south lean	Low	Remove

No	Species Name	Common Name	Type	DBH (cm)	H x W (m)	Age Class	Health	Structure	Form	TPZ (N/A)	Comment	Retention	Recommend
94	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	*65	17x13N/S 9E/W	Maturing	Poor	Poor	Dominant Asymmetric	8.5	decline; Epicormic crown; Stag headed;	Low	Remove
95	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	23	6x7N/S 7E/W	Semi-mature	Fair to Poor	Poor	Suppressed	3.5	cavity atop bole	Low	Remove
96	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	21	6x7E/W 5N/S	Semi-mature	Fair	Fair	Dominant Symmetric	3.5E/W3N/S		Moderate	Could be retained
97	*Eucalyptus sp.*	Gum tree	N/A	55	2x1	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
98	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	34	9x11N/S 6E/W	Semi-mature	Poor	Fair to Poor	Dominant Asymmetric	4.5E/W 5.5N/S	Decline; Dieback	Low	Remove
99	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	*55	14x11E/W 10N/S	Maturing	Fair	Poor	Dominant Asymmetric	7	Multi limb failure; Basal included bark crotch	Low	Remove
100	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	45	12x7N/S 10E/W	Maturing	Fair to Poor	Fair	Codominant Asymmetric	6	Epicormic crown; Dieback	Low	Remove
101	Stump	N/A	N/A	N/A	N/A	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
102	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	29	13x7E/W 7N/S	Maturing	Fair	Poor	Codominant Asymmetric	6.5	trunk semi-occluded wound	Low	Remove
103	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	16	6x2N/S 2E/W	Semi-mature	Poor	Poor	Stump resprout	3	Dieback Basal cavity	Low	Remove
104	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	43	13x14N/S 12E/W	Maturing	Fair to Poor	Poor	Codominant Asymmetric	6.5	Decline; Dieback Limb failure	Low	Remove
105	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*23	7x5N/S 5E/W	Semi-mature	Poor	Poor	Intermediate	3.5	advanced decline;	None	Remove

No	Species Name	Common Name	Type	DBH (cm)	H x W (m)	Age Class	Health	Structure	Form	TPZ (N/A)	Comment	Retention	Recommend
106	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*51	10x14E/W 14N/S	Maturing	Fair to Poor	Poor	Dominant Symmetric	7	4 stems; included bark crotch main scaffold of main spar	Low	Remove
107	Stump	N/A	N/A	N/A	N/A	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
108	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	71	17x15N/S 10E/W	Senescent	Poor	Poor	Dominant Asymmetric	8.5	advanced decline; Multi limb failure	None	Remove
109	*Eucalyptus sp.*	Gum tree	N/A	43	12x8	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
110	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*42	15x9E/W 7N/S	Maturing	Fair to Poor	Poor	Codominant Asymmetric	7.5	Basal cavity & decay; Epicormic crown;	Low	Remove
111	*?Exocarpus cupressiformis*	Cherry Ballart	Indigenous	30	5x3	N/A	Dead	Poor	N/A	N/A	N/A	None	Remove
112	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	22	7x7N/S 5E/W	Semi-mature	Fair	Poor	Dominant Asymmetric	3.5	Basal cavity & decay; Epicormic crown;	Low	Remove
113	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	39	11x10N/S 7E/W	Maturing	Fair	Poor	Codominant Asymmetric	5.5	advanced decline; Epicormic crown;	None	Remove
114	*?Exocarpus cupressiformis*	Cherry Ballart	Indigenous	34	5x5	N/A	Dead	Poor	N/A	N/A	N/A	None	Remove
115	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	65	14x13N/S 12E/W	Maturing	Poor	Poor	Dominant Asymmetric	7	advanced decline; Stag headed;	None	Remove
116	*Eucalyptus sp.*	Gum tree	N/A	44	9x7	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
117	*Eucalyptus sp.*	Gum tree	N/A	32	7x5	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
118	Stump	N/A	N/A	N/A	N/A	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
119	*Eucalyptus sp.*	Gum tree	N/A	59	11x7	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove

No	Species Name	Common Name	Type	DBH (cm)	H x W (m)	Age Class	Health	Structure	Form	TPZ (N/A)	Comment	Retention	Recommend
120	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	38	15x10N/S 6E/W	Maturing	Fair to Poor	Fair	Dominant Symmetric	7.5	Epicormic crown;	Low	Remove
121	*Eucalyptus sp.*	Gum tree	N/A	34	13x7	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
122	Stump	N/A	N/A	N/A	N/A	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
123	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*49	13x14N/S 14E/W	Maturing	Fair to Poor	Poor	Dominant Symmetric	7	5 stemmed; advanced decline; Stag headed; Epicormic crown;	None	Remove
124	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	*27	9x5E/W 4N/S	Semi-mature	Poor	Poor	Intermediate	4.5	advanced decline; Stag headed;	None	Remove
125	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	27	7x5E/W 6N/S	Semi-mature	Fair to Poor	Poor	Suppressed	3.5	Head lean ~45deg	Low	Remove
126	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*41	13x10N/S 10E/W	Semi-mature	Fair to Poor	Poor	Dominant Asymmetric	6.5	basal trifurcated	Low	Remove
127	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*25	12x7N/S 7E/W	Semi-mature	Poor	Poor	Intermediate	6	basal 4 stemmed; Decline; Epicormic crown;	Low	Remove
128	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*34	8x5N/S 6E/W	Semi-mature	Fair to Poor	Poor	Intermediate	4	basal 4 stems; Decline; Epicormic crown;	Low	Remove
129	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*39	13x10N/S 11E/W	Semi-mature	Fair to Poor	Poor	Codominant Asymmetric	6.5	6 basal stems; Epicormic Dieback	Low	Remove
130	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	20	7x6N/S 7E/W	Maturing	Fair	Fair to Poor	Suppressed	3.5		Low	Remove
131	*Eucalyptus sp.*	Gum tree	N/A	*20	7x3	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
132	*Eucalyptus sp.*	Gum tree	N/A	*54	16x16	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove

No	Species Name	Common Name	Type	DBH (cm)	H x W (m)	Age Class	Health	Structure	Form	TPZ (N/A)	Comment	Retention	Recommend
133	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	23	9x4E/W 7N/S	Semi-mature	Fair to Poor	Fair	Suppressed	4.5	Epicormic crown;	Low	Remove
134	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*34	17x3E/W 5N/S	Maturing	Poor	Poor	Intermediate	8.5	Epicormic crown; advanced decline;	None	Remove
135	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	25	14x3N/S 7E/W	Maturing	Fair to Poor	Poor	Intermediate	7	Basal cavity; Decline; Poor trunk taper	Low	Remove
136	*Eucalyptus sp.*	Gum tree	N/A	57	16x12	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
137	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	16	8x5E/W 5N/S	Maturing	Fair	Poor	Suppressed	4		Low	Remove
138	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*33	13x7N/S 5E/W	Maturing	Poor	Poor	Intermediate	6.5	advanced decline; Dieback Epicormic crown;	None	Remove
139	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*37	14x7N/S 9E/W	Maturing	Poor	Poor	Codominant Asymmetric	7	advanced decline; Dieback	None	Remove
140	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*28	11x8E/W 7N/S	Semi-mature	Fair to Poor	Poor	Codominant Asymmetric	5.5	Basal cavity; Epicormic crown; Dieback	Low	Remove
141	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	14	11x5E/W 4N/S	Semi-mature	Fair to Poor	Poor	Intermediate	5.5	Epicormic crown; poor trunk taper	Low	Remove
142	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	38	13x6E/W 7N/S	Maturing	Fair to Poor	Fair	Intermediate	6.5	Dieback	Low	Remove
143	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	30	12x7E/W 8N/S	Maturing	Fair to Poor	Fair	Codominant Asymmetric	6	Dieback; included bark crotch in upper crown	Low	Remove
144	*Eucalyptus sp.*	Gum tree	N/A	67	7x3	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove

No	Species Name	Common Name	Type	DBH (cm)	H x W (m)	Age Class	Health	Structure	Form	TPZ (N/A)	Comment	Retention	Recommend
145	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*38	10x11N/S 12E/W	Maturing	Fair	Poor	Codominant Asymmetric	5.5N/S 6E/W	Basal cavity	Low	Remove
146	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*32	9x8E/W 8N/S	Semi-mature	Fair	Poor	Intermediate	4.5	advanced decline; Stag headed;	None	Remove
147	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*43	14x13E/W 10N/S	Maturing	Poor	Fair	Dominant Asymmetric	7	advanced decline; Epicormic crown;	None	Remove
148	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*35	13x7E/W 8N/S	Maturing	Fair to Poor	Fair	Dominant Asymmetric	6.5	Dieback; Epicormic crown;	Low	Remove
149	Stump	N/A	N/A	N/A	N/A	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
150	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*31	11x7N/S 6E/W	Semi-mature	Fair	Poor	Intermediate	5.5	Basal cavities; 1 spar split	Low	Remove
151	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	19	7x6N/S 4E/W	Semi-mature	Fair to Poor	Poor	Intermediate	3.5	~60 degree lean; Epicormic crown; Dieback	Low	Remove
152	*Eucalyptus sp.*	Gum tree	N/A	*63	16x9	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
153	*Eucalyptus sp.*	Gum tree	N/A	34	7x2	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
154	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*41	16x8N/S	Maturing	Fair to Poor	Fair	Dominant Asymmetric	8	Decline; Dieback	Low	Remove
155	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*28	7E/W	Semi-mature	Fair	Poor	Intermediate	4	Basal 6stems Basal cavity	Low	Remove
156	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*28	8x8N/S	Semi-mature	Poor	Fair	Dominant Symmetric	6.5	advanced decline; Stag headed; Epicormic crown;	None	Remove
157	*Eucalyptus sp.*	Gum tree	N/A	*45	6E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove

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158	*Allocasuarina littoralis*	Black She-oak	Indigenous	37	13x3N/S	Maturing	Fair to Poor	Poor	Dominant Symmetric	6.5	Decline; Top Dieback	Low	Remove
159	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	*48	3E/W	Maturing	Fair to Poor	Fair	Codominant Asymmetric	7.5	Late maturity; Dieback	Low	Remove
160	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*55	16x11	Maturing	Fair to Poor	Poor	Codominant Asymmetric	8.5	Epicormic crown; decline; Basal cavity& included bark crotch	Low	Remove
161	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	21	13x8N/S	Maturing	Fair to Poor	Poor	Intermediate	7	decline; Poor trunk taper	Low	Remove
162	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*34	9E/W	Maturing	Fair to Poor	Poor	Intermediate	8	Epicormic crown; advanced decline; Stag headed;	None	Remove
163	Stump	N/A	N/A	N/A	15x11N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
164	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	66	10E/W	Maturing	Fair	Fair	Dominant Symmetric	8		Moderate	Could be retained
165	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*52	17x12E/W	Maturing	Poor	Poor	Dominant Symmetric	7	advanced decline; Stag headed; Limb failure	None	Remove
166	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*17	8N/S	Semi-mature	Fair to Poor	Poor	Intermediate	3.5	Decline; Stag headed;	Low	Remove
167	*Eucalyptus sp.*	Gum tree	N/A	18	14x5N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
168	*Eucalyptus sp.*	Gum tree	N/A	19	3E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
169	*Eucalyptus sp.*	Gum tree	N/A	*32	16x6E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
170	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	27	8N/S	Semi-mature	Poor	Poor	Intermediate	4.5	Basal cavity Stag headed; Decline;	Low	Remove

No	Species Name	Common Name	Type	DBH (cm)	H x W (m)	Age Class	Health	Structure	Form	TPZ (N/A)	Comment	Retention	Recommend
171	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*39	N/A	Maturing	Poor	Poor	Codominant Asymmetric	6.5	Stag headed; Decline;	Low	Remove
172	*Eucalyptus sp.*	Gum tree	N/A	35	16x12E/W 15N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
173	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	17	14x8E/W	Maturing	Fair to Poor	Poor	Suppressed	3.5	Decline; Stag headed; Epicormic crown;	Low	Remove
174	*Eucalyptus sp.*	Gum tree	N/A	18	9N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
175	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	41	7x4E/W	Maturing	Poor	Poor	Codominant Asymmetric	6.5	cavities & dead heartwood on trunk	Low	Remove
176	*Eucalyptus sp.*	Gum tree	N/A	78	3N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
177	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	47	6x4	Maturing	Fair to Poor	Poor	Dominant Symmetric	8	Basal cavity Dieback	Low	Remove
178	*Eucalyptus sp.*	Gum tree	N/A	20	9x6	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
179	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*65	13x7	Maturing	Poor	Poor	Dominant Symmetric	8	6 spars; Basal cavities & Decay; Dieback Epicormic crown; Decline;	Low	Remove
180	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	*72	9x6N/S	Maturing	Fair to Poor	Poor	Dominant Symmetric	8N/S 8.5E/W	Multi limb failure; Dieback; included bark crotch b/w 2 of 3spars	Low	Remove
181	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*38	6E/W	Maturing	Fair to Poor	Poor	Intermediate	5.5	Basal cavity & Decay;	Low	Remove

No	Species Name	Common Name	Type	DBH (cm)	H x W (m)	Age Class	Health	Structure	Form	TPZ (N/A)	Comment	Retention	Recommend
182	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*28	13x10E/W	Semi-mature	Fair to Poor	Poor	Suppressed	4.5	Stag headed;	Low	Remove
183	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	35	9N/S	Maturing	Fair	Fair	Codominant Asymmetric	5.5		Moderate	Could be retained
184	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*42	14x11	Maturing	Fair	Fair	Codominant Asymmetric	6	Basal cavity & decay	Low	Remove
185	*Eucalyptus sp.*	Gum tree	N/A	56	7x4E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
186	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*33	5N/S	Semi-mature	Fair	Poor	Dominant Symmetric	4.5	Basal cavity	Low	Remove
187	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*36	6x3E/W	Semi-mature	Fair	Fair	Dominant Symmetric	5		Moderate	Could be retained
188	Stump	N/A	N/A	N/A	13x6E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
189	*Eucalyptus sp.*	Gum tree	N/A	*61	7N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
190	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*39	9x11	Semi-mature	Fair	Fair to Poor	Dominant Symmetric	4.5	2 spars dead	Low	Remove
191	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	25	16x9N/S	Semi-mature	Fair	Fair	Dominant Symmetric	5.5		Moderate	Could be retained
192	Stump	N/A	N/A	N/A	0E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
193	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	20	13x5	Semi-mature	Fair to Poor	Fair to Poor	Dominant Symmetric	5	Trunk swelling; Stag headed; Epicormic crown;	Low	Remove
194	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*28	16x15N/S 15E/W	Semi-mature	Fair	Fair to Poor	Dominant Symmetric	5.5	Dieback; basal included bark crotch	Low	Remove
195	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*46	16x15N/S 17E/W	Semi-mature	Fair to Poor	Poor	Dominant Symmetric	8.5	Dieback; Multiple Basal cavity	Low	Remove

No	Species Name	Common Name	Type	DBH (cm)	H x W (m)	Age Class	Health	Structure	Form	TPZ (N/A)	Comment	Retention	Recommend
196	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	17	11x9E/W	Semi-mature	Fair	Poor	Suppressed	3.5	~50 degree head lean	Low	Remove
197	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	17	7N/S	Semi-mature	Fair to Poor	Fair	Codominant Asymmetric	4.5	Dieback	Low	Remove
198	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	24	9x8E/W	Semi-mature	Fair to Poor	Fair	Dominant Asymmetric	4.5	Dieback; trunk cavity	Low	Remove
199	Stump	N/A	N/A	N/A	7N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
200	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*57	11x7N/S	Semi-mature	Fair	Poor	Dominant Asymmetric	8	Basal cavity & trunk swell	Low	Remove
201	*Eucalyptus sp.*	Gum tree	N/A	41	5E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
202	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	42	11x12E/W 12N/S	Maturing	Fair to Poor	Fair to Poor	Dominant Asymmetric	6.5	Stag headed;	Low	Remove
203	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*31	14x11	Maturing	Fair to Poor	Fair to Poor	Dominant Symmetric	5.5	Dieback	Low	Remove
204	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	*64	9x7N/S	Maturing	Poor	Poor	Dominant Symmetric	8.5	advanced decline; Stag headed;	None	Remove
205	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*46	9E/W	Maturing	Poor	Poor	Dominant Asymmetric	7.5	decline; Stag headed;	Low	Remove
206	*Eucalyptus sp.*	Gum tree	N/A	67	9x10E/W	N/A	Dead	N/A	N/A	N/A6	N/A	None	Remove
207	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	20	10N/S	Maturing	Fair to Poor	Fair	Suppressed	4	south lean	Low	Remove
208	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	32	N/A	Maturing	Fair	Fair	Dominant Asymmetric	5.5	mostly Epicormic crown;	Low	Remove
209	*Eucalyptus sp.*	Gum tree	N/A	37	15x17	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove

No	Species Name	Common Name	Type	DBH (cm)	H x W (m)	Age Class	Health	Structure	Form	TPZ (N/A)	Comment	Retention	Recommend
210	*Eucalyptus sp.*	Gum tree	N/A	18	9x7N/S 9E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
211	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*35	11x7N/S	Maturing	Fair to Poor	Poor	Dominant Asymmetric	6.5.	Epicormic crown; Basal cavities	Low	Remove
212	*Eucalyptus sp.*	Gum tree	N/A	44	7E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
213	*Eucalyptus sp.*	Gum tree	N/A	29	N/A	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
214	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	30	10x6N/S	Maturing	Fair	Fair to Poor	Codominant Asymmetric	4	stump resprout	Low	Remove
215	Stump	N/A	N/A	N/A	7E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
216	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	24	11x9E/W	Semi-mature	Fair	Fair	Codominant Asymmetric	3.5		Moderate	Could be retained
217	Stump	N/A	N/A	N/A	9N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
218	Stump	N/A	N/A	N/A	17x11E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
219	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*51	8N/S	Maturing	Fair to Poor	Fair to Poor	Dominant Symmetric	6	Stag headed;	Low	Remove
220	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	35	7x5N/S	Semi-mature	Fair to Poor	Fair to Poor	Dominant Asymmetric	4	Limb failure	Low	Remove
221	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*52	6E/W	Semi-mature	Poor	Poor	Dominant Asymmetric	5.5	Stag headed; Limb failure; trunk necrosis	Low	Remove
222	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	35	9x5N/S	Semi-mature	Fair to Poor	Poor	Dominant Asymmetric	6.5	prostrate trunk	Low	Remove
223	Stump	N/A	N/A	N/A	5E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
224	Stump	N/A	N/A	N/A	9x8N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
225	*Eucalyptus sp.*	Gum tree	N/A	64	6E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
226	*Eucalyptus sp.*	Gum tree	N/A	55	N/A	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove

No	Species Name	Common Name	Type	DBH (cm)	H x W (m)	Age Class	Health	Structure	Form	TPZ (N/A)	Comment	Retention	Recommend
227	*Allocasuarina littoralis*	Black She-oak	Indigenous	39	16x10N/S 12E/W	Senescent	Fair to Poor	Fair to Poor	Dominant Symmetric	5.5	Decline;	Low	Remove
228	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	28	17x9	Semi-mature	Fair	Fair to Poor	Dominant Asymmetric	5	Stag headed;	Low	Remove
229	*Eucalyptus sp.*	Gum tree	N/A	23	13x11N/S 11E/W	N/A	Dead	N/A	N/A	3.5	N/A	None	Remove
230	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	42	11x6N/S	Semi-mature	Poor	Poor	Dominant Asymmetric	6.5	Stag headed; advanced decline;	None	Remove
231	*Eucalyptus sp.*	Gum tree	N/A	*27	8E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
232	*Eucalyptus sp.*	Gum tree	N/A	*57	17x12N/S 13E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
233	*Eucalyptus sp.*	Gum tree	N/A	35	15 x11N/S 10E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
234	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*30	12x5	Semi-mature	Poor	Poor	Dominant Symmetric	5	advanced decline; Stag headed; Epicormic crown;	None	Remove
235	*Eucalyptus sp.*	Gum tree	N/A	*38	8x7N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
236	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	29	8E/W	Semi-mature	Poor	Poor	Dominant Asymmetric	4	decline; trunk necrosis Dieback; late maturity	None	Remove
237	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*34	11x8N/S	Semi-mature	Poor	Poor	Dominant Symmetric	3	Trunk failure Stag headed; advanced decline; split trunk	None	Remove
238	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	35	8E/W	Maturing	Poor	Poor	Dominant Symmetric	4.5	Trunk necrosis Dieback	None	Remove

No	Species Name	Common Name	Type	DBH (cm)	H x W (m)	Age Class	Health	Structure	Form	TPZ (N/A)	Comment	Retention	Recommend
239	*Eucalyptus sp.*	Gum tree	N/A	*36	12x8	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
240	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*29	9x4	Semi-mature	Poor	Poor	Intermediate	5	advanced decline; Stag headed; Epicormic crown;	None	Remove
241	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*51	13x11E/W	Maturing	Poor	Poor	Dominant Symmetric	5.5E/W 6N/S	Decline; Dieback Basal cavities	Low	Remove
242	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*46	7N/S	Maturing	Fair to Poor	Poor	Dominant Symmetric	5N/S 6.5E/W	Decline; Dieback Basal included bark crotch & cavity	Low	Remove
243	*Eucalyptus sp.*	Gum tree	N/A	32	14x9	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
244	*Eucalyptus sp.*	Gum tree	N/A	*35	7x8	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
245	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	43	8x7E/W	Maturing	Poor	Poor	Dominant Asymmetric	6	Decline; Stag headed; Epicormic crown;	Low	Remove
246	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	47	7N/S	Maturing	Fair	Poor	Dominant Asymmetric	7	Basal cavity & trunk swelling; Dieback	Low	Remove
247	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*73	N/A	Maturing	Fair	Poor	Dominant Asymmetric	7.5	trifurcated with Basal included bark crotch; cavity in main spar	Low	Remove
248	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*26	7x6E/W	Semi-mature	Poor	Poor	Dominant Symmetric	3.5	Decline; Stag headed; Epicormic crown;	Low	Remove
249	*Eucalyptus sp.*	Gum tree	N/A	*38	6N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
250	*Eucalyptus sp.*	Gum tree	N/A	77@ 100	N/A	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove

No	Species Name	Common Name	Type	DBH (cm)	H x W (m)	Age Class	Health	Structure	Form	TPZ (N/A)	Comment	Retention	Recommend
251	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	31	N/A	Semi-mature	Poor	Poor	Dominant Asymmetric	5.5	Basal cavity trunk necrosis Stag headed;	Low	Remove
252	*Eucalyptus sp.*	Gum tree	N/A	*80	12x12E/W 10N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
253	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	*44	8x7E/W	Semi-mature	Fair to Poor	Fair	Dominant Symmetric	5.5	Decline; Dieback	Low	Remove
254	*Eucalyptus sp.*	Gum tree	N/A	24	8N/S	N/A	Dead	N/A	N/A	4.5	N/A	None	Remove
255	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	*54	11x11E/W 10N/S	Maturing	Fair to Poor	Poor	Dominant Symmetric	5.5N/S 6E/W	Decline; Stag headed;	Low	Remove
256	*Acacia paradoxa*	Kangaroo Thorn	Indigenous	30B	7x13N/S	Senescent	Fair to Poor	Poor	Dominant Symmetric	2	advanced decline;	None	Remove
257	*Eucalyptus sp.*	Gum tree	N/A	27	9E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
258	*Eucalyptus sp.*	Gum tree	N/A	*39	N/A	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
259	*Eucalyptus sp.*	Gum tree	N/A	33	N/A	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
260	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*53	8x3	Senescent	Poor	Poor	Codominant Asymmetric	7	advanced decline; Stag headed; Epicormic crown; Basal cavity	None	Remove
261	*Eucalyptus sp.*	Gum tree	N/A	*39	13x8	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
262	*Eucalyptus sp.*	Gum tree	N/A	58	11x11E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
263	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*34	9N/S	Semi-mature	Fair to Poor	Poor	Suppressed	4	Epicormic crown; Basal cavity Decline; Dieback	Low	Remove
264	Stump	N/A	N/A	N/A	10x7E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
265	*Acacia sp*	Wattle	N/A	8	8N/S	N/A	Dead	Poor	N/A	N/A	N/A	None	Remove

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266	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	~85@ 100	6x7	Semi-mature	Fair to Poor	Poor	Dominant Asymmetric	7.5	Basal cavity & decay; Limb failure	Low	Remove
267	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*37	13x11E/W 13N/S	Semi-mature	Fair to Poor	Poor	Dominant Asymmetric	4.5	advanced decline; Stag headed;	None	Remove
268	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*44	8x7	Semi-mature	Poor	Poor	Dominant Asymmetric	6.5	advanced decline; Stag headed; Epicormic crown;	None	Remove
269	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*39	7x3	Maturing	Fair to Poor	Poor	Dominant Symmetric	5.5	Dieback; Basal included bark crotch & cavity	Low	Remove
270	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	44	11x7	Semi-mature	Poor	Fair to Poor	Dominant Symmetric	5E/W 4.5N/S	Limb overextension	Low	Remove
271	Stump	N/A	N/A	N/A	10x5N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
272	Stump	N/A	N/A	N/A	5E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
273	*Eucalyptus sp.*	Gum tree	N/A	83	11x7	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
274	Stump	N/A	N/A	N/A	8x6E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
275	*Eucalyptus sp.*	Gum tree	N/A	79	7N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
276	Stump	N/A	N/A	N/A	6x5N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
277	Stump	N/A	N/A	N/A	6E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
278	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	45	9x7N/S	Maturing	Fair to Poor	Fair	Suppressed	5.5	Dieback; Decline;	Low	Remove
279	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	54	6E/W	Maturing	Fair	Poor	Dominant Asymmetric	5N/S 6E/W	partial root plate failure; decay & cavity main trunk	Low	Remove
280	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	25	10x7	Maturing	Fair	Fair	Dominant Asymmetric	4.5N/S 5E/W	prostrate trunk; stump regrowth	Low	Remove

No	Species Name	Common Name	Type	DBH (cm)	H x W (m)	Age Class	Health	Structure	Form	TPZ (N/A)	Comment	Retention	Recommend
281	Stump	N/A	N/A	N/A	10x6N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
282	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*62	6E/W	Maturing	Poor	Poor	Dominant Asymmetric	6N/S 7.5E/W	advanced decline; Stag headed; Basal cavity	None	Remove
283	*Eucalyptus sp.*	Gum tree	N/A	68	11x12N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
284	*Eucalyptus sp.*	Gum tree	N/A	62	8E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
285	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*67	10x9N/S	Maturing	Fair	Poor	Dominant Symmetric	7.5	Basal cavity & swell Dieback; Decline;	Low	Remove
286	*Eucalyptus sp.*	Gum tree	N/A	55	13E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
287	Stump	N/A	N/A	N/A	5x3	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
288	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*44	6x3	Maturing	Fair	Fair to Poor	Dominant Symmetric	5.5	Basal cavity borer & swelling Dieback	Low	Remove
289	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	45	12x9N/S	Maturing	Fair	Fair to Poor	Dominant Symmetric	5.5	cavities & swelling on trunk	Low	Remove
290	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	89	6E/W	Senescent	Poor	Poor	Dominant Asymmetric	7	advanced decline; Stag headed;	None	Remove
291	*Eucalyptus sp.*	Gum tree	N/A	58	14 x8E/W 11N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
292	*Eucalyptus sp.*	Gum tree	N/A	67	15x12E/W 12N/S	N/A	Dead	N/A	N/A	7.5	N/A	None	Remove
293	Stump	N/A	N/A	N/A	7x6N/S	N/A	Dead	N/A	N/A	N/A	Fallen dead tree	None	Remove
294	*Eucalyptus sp.*	Gum tree	N/A	95@ 100	6E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove

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295	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	*72	7x3	Senescent	Poor	Poor	Dominant Asymmetric	7	advanced decline; Stag headed; Epicormic crown;	None	Remove
296	Stump	N/A	N/A	N/A	9x3	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
297	Stump	N/A	N/A	N/A	11x6E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
298	*Eucalyptus sp.*	Gum tree	N/A	70	8N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
299	*Eucalyptus radiata*	Narrow-leaved Peppermint	Indigenous	*45	17x9	Maturing	Fair to Poor	Poor	Dominant Symmetric	7	Decline; basal included bark crotch Dieback	Low	Remove
300	*Eucalyptus sp.*	Gum tree	N/A	63	7x11N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
301	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	*93	11E/W	Senescent	Poor	Poor	Dominant Symmetric	7E/W 8.5N/S	Decline; Epicormic crown; Multi limb failure	Low	Remove
302	Stump	N/A	N/A	N/A	9x5	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
303	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	79	11x10N/S 12E/W	Maturing	Poor	Poor	Dominant Asymmetric	7.5	advanced decline; Stag headed; Epicormic crown;	None	Remove
304	*Eucalyptus sp.*	Gum tree	N/A	54	4x3N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
305	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	*52	3E/W	Maturing	Fair to Poor	Fair	Dominant Asymmetric	7	Dieback Decline;	Low	Remove
306	*Eucalyptus sp.*	Gum tree	N/A	88	8x5	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
307	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	59	11x6	Maturing	Fair	Fair	Dominant Asymmetric	7E/W 7.5N/S		Moderate	Could be retained
308	Stump	N/A	N/A	N/A	8x7	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
309	*Eucalyptus sp.*	Gum tree	N/A	~70	14x13N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
310	*Eucalyptus sp.*	Gum tree	N/A	31	9E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove

No	Species Name	Common Name	Type	DBH (cm)	H x W (m)	Age Class	Health	Structure	Form	TPZ (N/A)	Comment	Retention	Recommend
311	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	71	14x8	Senescent	Poor	Poor	Codominant Asymmetric	8	advanced decline; Epicormic crown; Stag headed;	None	Remove
312	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	90	16x8	Senescent	Poor	Poor	Codominant Asymmetric	8	advanced decline; Epicormic crown; Stag headed; Multi limb failure	None	Remove
313	*Eucalyptus sp.*	Gum tree	N/A	72	6x8E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
314	Stump	N/A	N/A	N/A	8N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
315	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	*64	N/A	Senescent	Fair to Poor	Poor	Dominant Asymmetric	7	Decline; Limb failure Basal cavity borer & decay	None	Remove
316	Stump	N/A	N/A	N/A	10x8	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
317	Stump	N/A	N/A	N/A	15x12N/S 15E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
318	Stump	N/A	N/A	N/A	9x9E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
319	*Eucalyptus pryoriana*	Gippsland Manna Gum	Indigenous	*93	8N/S	Maturing	Fair	Poor	Dominant Symmetric	8	Borer damage & necrosis main scaffold limbs; late maturity;	Low	Remove
320	*Eucalyptus sp.*	Gum tree	N/A	96	13x12N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
321	Stump	N/A	N/A	N/A	8E/W	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove
322	Stump	N/A	N/A	N/A	11x8N/S	N/A	Dead	N/A	N/A	N/A	N/A	None	Remove

Refer to appendix 2 for explanation of descriptors.
DBH = Trunk diameter measured at 1.4m above grade where possible except where; numbers prefixed by * indicates calibrated DBH calculated from multiple stem measurements; …@... indicates measurement taken at other height above grade indicated by figure proceeding @ symbol.
HXW = Height of tree and Width of crown
TPZ = Tree Protection Zone (refer to appendix 5 for explanation)

Appendix 2 Tree Descriptors

Age Class:

Category	Description
Young	Sapling tree and/or recently planted. As a guide a tree up to ≈ 5 years of age.
Semi-mature	Tree rapidly increasing in size and yet to achieve expected size in situation.
Maturing	Specimen has reached expected size in situation, with reduced incremental growth.
Over-mature	Tree is senescent and in decline.

Health:

Category	Description
Good	Good growth indicators, e.g. extension growth. Crown full, with good density, foliage entire with good colour. No or minimal canopy dieback. Minimal or no pathogen damage. Good wound wood development.
Fair	Typical growth indicators, e.g. extension growth, leaf size, canopy density for species in location. Tree may have <30% dead wood, or can have minor canopy dieback. Foliage generally with good colour, some discolouration may be present. Minor pathogen damage may be present.
Poor	Poor growth indicators. Tree may have >30% dead wood. Canopy dieback present. Discoloured or distorted leaves, and/or excessive epicormic growth. Pathogen is present and/or stress symptoms that could lead or are leading to decline of tree.
Dead	Tree is dead

Structure:

Category	Description
Good	Well developed branch attachment and spacing and/or no or minor structural defects. Trunk and scaffold branches sound or minor damage. Well developed trunk and scaffold branch taper. No branch over extension. No damage to structural roots and/or good buttressing present. No obvious root pests or diseases.
Fair	Typical structure for species. Some minor structural defects and/or minor damage to trunk. Bark missing. Cavities could be present. Minimal or no damage to structural roots.
Poor	Major structural defects and/or trunk damaged and/or missing bark, large cavities, and/or girdling or damaged roots that is problematic.
Hazardous	Tree poses immediate hazard potential that should be rectified as soon as possible.

*Note: The category 'Fair to Poor' can be used for describing either the 'Health' or 'Structure of a tree. The term relates to the particular condition of the tree tending from 'Fair' to 'Poor' due to site or environmental conditions and unless appropriate arboricultural management is implemented the condition will continue to deteriorate to the 'Poor' category.

Form & Crown Class (General shape of the tree):

Crown class generally describes the relative position of trees in a stand, copse or planting and can be seen in diagram 1.

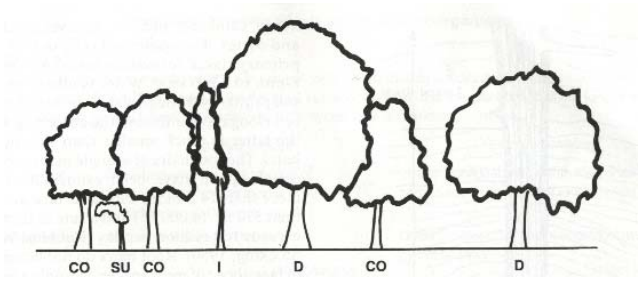


Diagram 1. Crown classes
(Harris, Clark, Matheny, 2004)

Dominant (D), codominant (CO), intermediate (I), and suppressed (S) as adapted from Harris, Clark, Matheny (2004)

The crown class, amongst other biological, site or environmental factors, can affect the form of the tree. Form can be described as (Adapted from Matheny & Clark, 1994):

Symmetric: Generally evenly balanced and full crown
Asymmetric: Crown generally biased in one direction leading to imbalance. Can be minor or major
Stump re-sprout: Adventitious shoots originating from stump or trunk (after severe dieback)
Stag-headed: Dead branches protruding through the live crown, indicating advanced decline and crown dieback.

Combinations of crown class and form can be used, e.g. Dominant, symmetric. Suppressed stump re-sprout.

Form (General shape of the tree):

Category	Description
Good	Canopy full and symmetrical.
Fair	Minor asymmetry or suppression. Considered typical for species in situation.
Poor	Canopy suppressed, major asymmetry. Stump re-growth

Retention Value:

Category	Description
High	Tree generally performing well in the site and exhibiting good health and structure (condition). Tree is able to respond to changes to its environment. Tree may be of particular significance to the site in terms of heritage or conservation values, or contributes substantially to the landscape. Tree has potential to be a long-term component of the landscape if managed appropriately. In order to retain high value trees changes/design modifications may be required.
Moderate	Tree generally performing well and could be considered typical of the species exhibiting fair condition and structure. Tree may have health or structural problems that may require treatment. Tree could sustain changes to its environment. Tree has potential to be a medium to long-term component of the landscape if managed appropriately and site constraints allow.
Low	Tree is in poor condition and/or poor structure that can not be rectified. Tree could not sustain dramatic or severe changes to its environment, or tree has detrimental effects on environment, e.g. woody weed.
None	Tree has no retention value.

Tree retention values relate to the tree in a planning context and whether a tree can be expected to be usefully retained. It is based on a number of obvious management assumptions, and the fundamental principles of safety and usefulness in the landscape.

Retention feasibility utilises multi-dimensional criteria. It considers the accumulation of assigned descriptor values in the context of the trees ability to fulfil aesthetic, functional and biological expectations and relates the current and anticipated growing environment in order to assign a retention value. Consideration can also be given to the ecological and social values if appropriate.

Retention value is also conditional based on arboricultural works or protection measures that may be required to successfully retain the tree.

Tree Protection Zone (TPZ)

The tree protection zones (TPZ) used to provide adequate space for the preservation of sufficient roots to maintain tree health whilst providing a buffer zone between construction activity and the tree trunk and crown. TPZ in this report have been calculated using the alternative method as described in The British Standard (5837-1991) Guide for Trees in relation to construction. The individual measurements stated in this report represent a radial distance measured in metres from the base of the trunk.

Root Plate Radius (RPR)

The Root Plate Radius (RPR) is a ratio measurement adapted from Mattheck and Breloer's work (Mattheck & Breloer 1994), which in lieu of exploratory excavation to establish the actual size and spatial distribution of structural roots of a tree indicates the distance required for the preservation of roots in order to maintain tree stability. The individual measurements stated in this report represent a radial distance measured in metres from the edge of the base of the trunk.

References

British Standard 5837. 1991, *Guide for Trees in relation to construction*. British Standards Institute.

Mattheck, C. & Breloer, H. (1994) *The body language of trees – A handbook for failure analysis*, The Stationery Office, London.

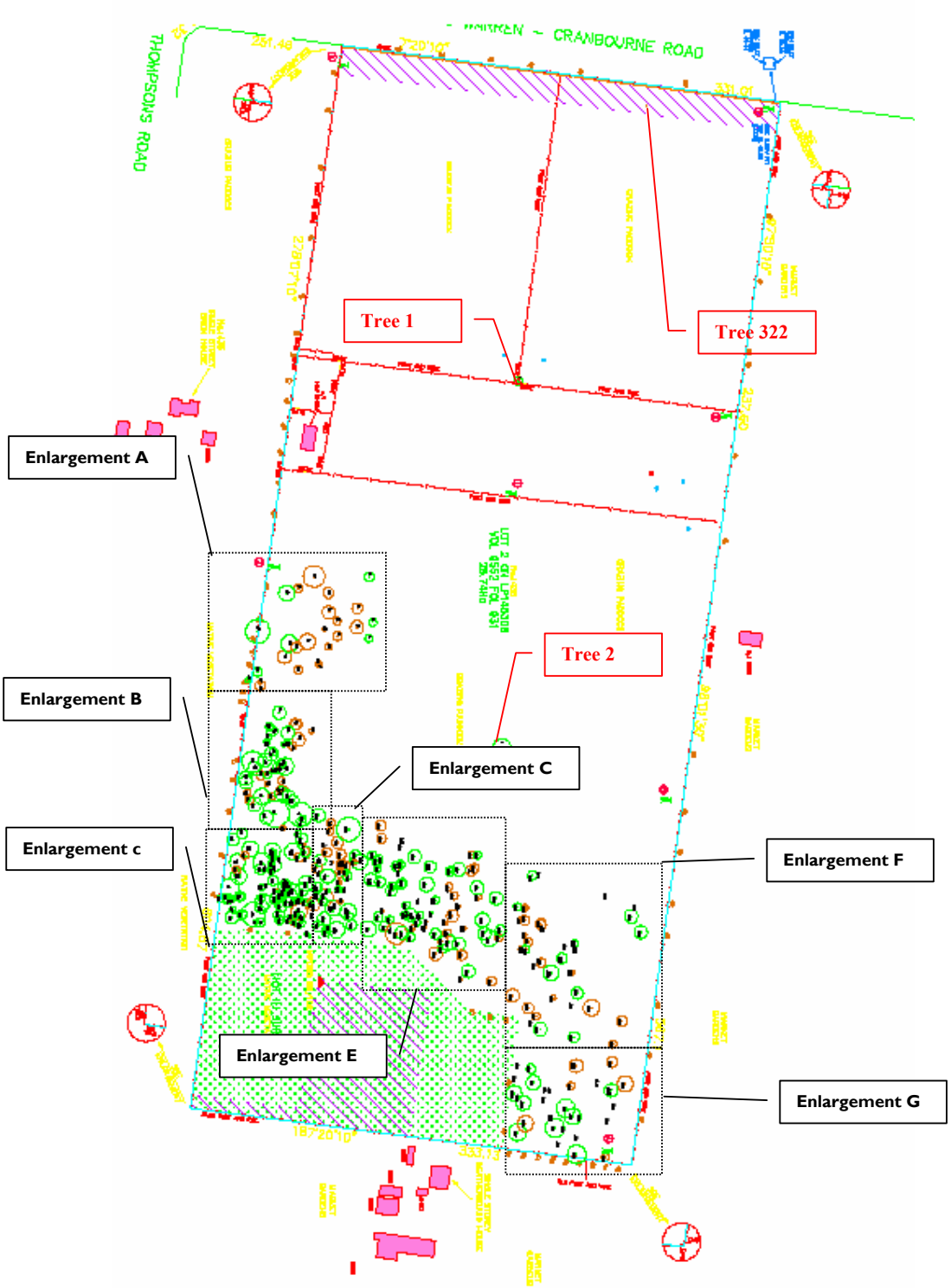
Appendix 3 Photographic Catalogue

Plate3: Characteristic of the greater stand, these trees to the south-west of the site, predominantly Narrow-leaved Peppermint, were in a state of decline. The numerous dead and stag headed trees are clearly visible .

Plate 2: Trees to the north of the site including tree 292 in the foreground provide more detail of the overall decline of the stand.

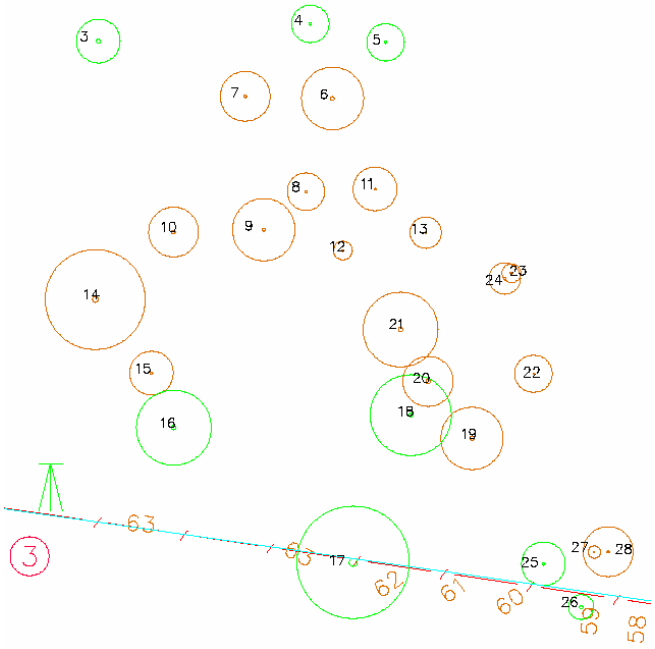
Plate 3: Trees in the north east corner of the site were mostly dead or in an advanced state of decline.

Appendix 4: Tree locations



Appendix 4: Tree locations Continued

Enlargement A



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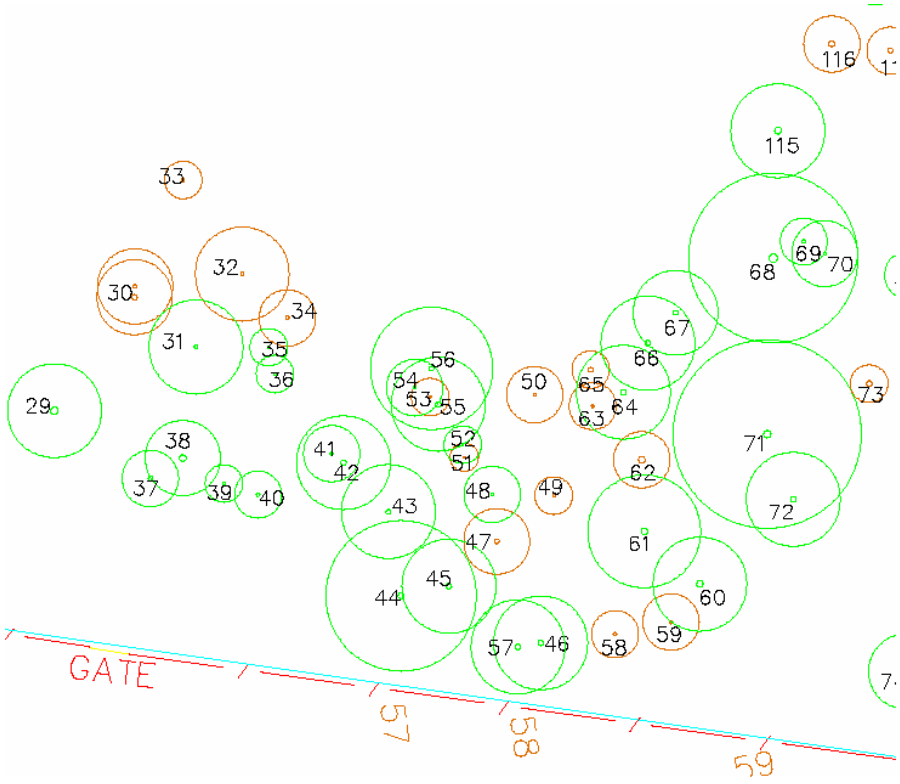
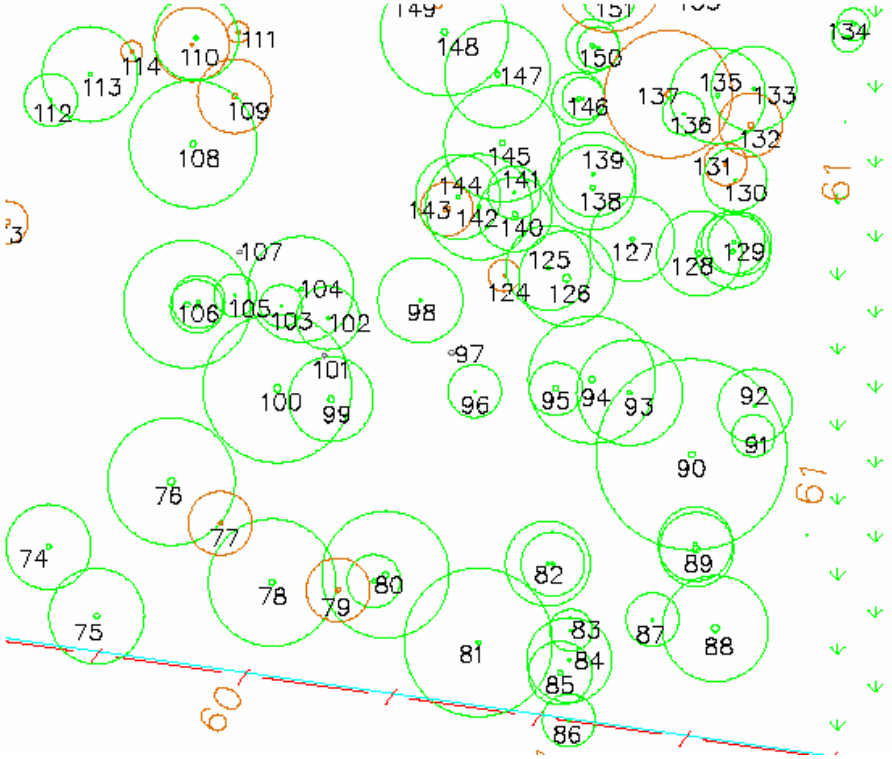
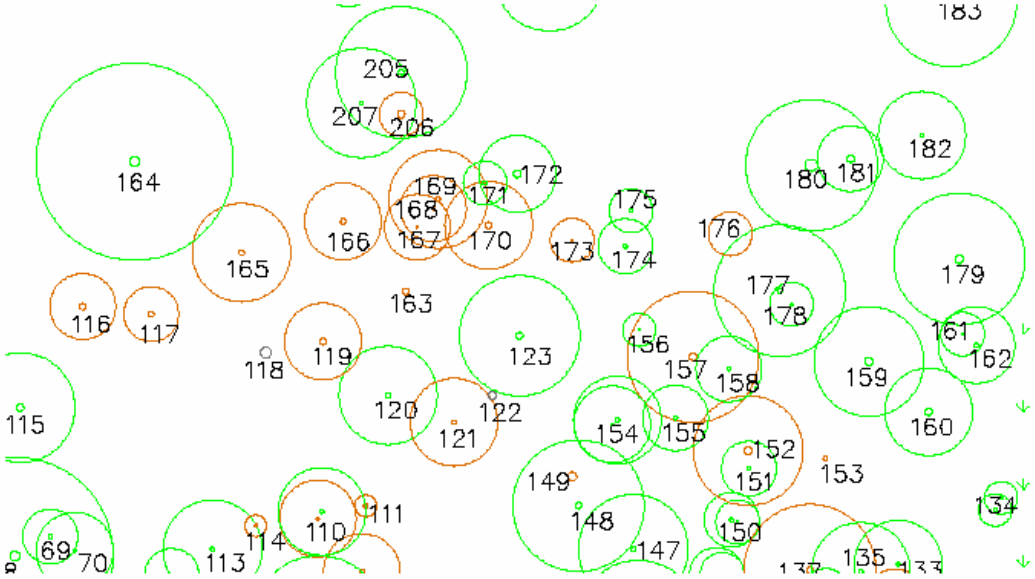


Appendix 4: Tree locations Continued

Enlargement C

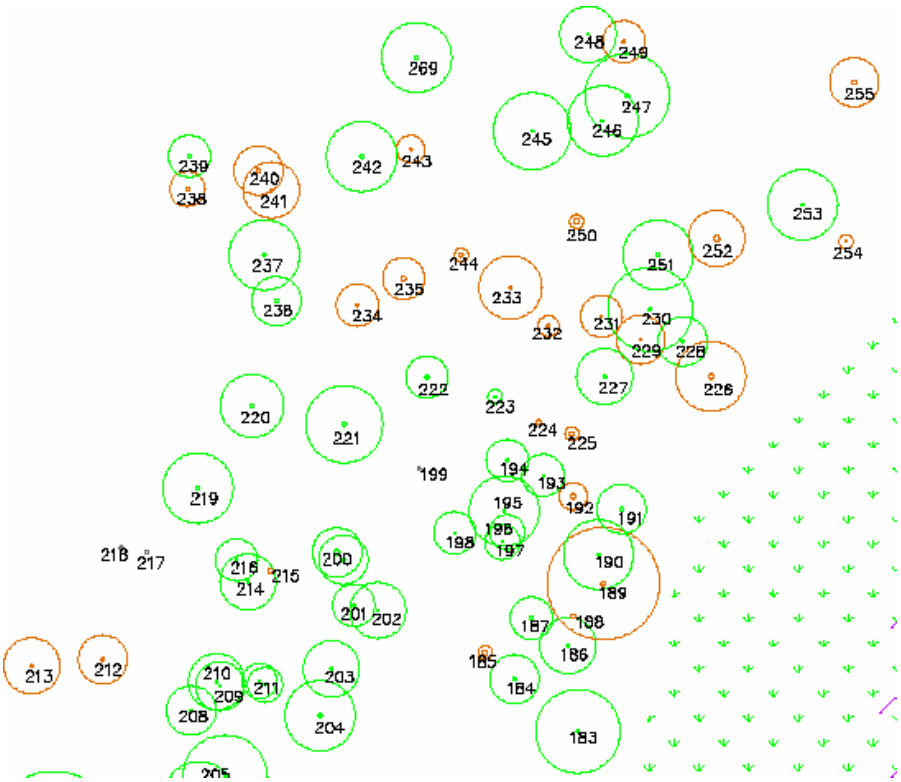


Enlargement D

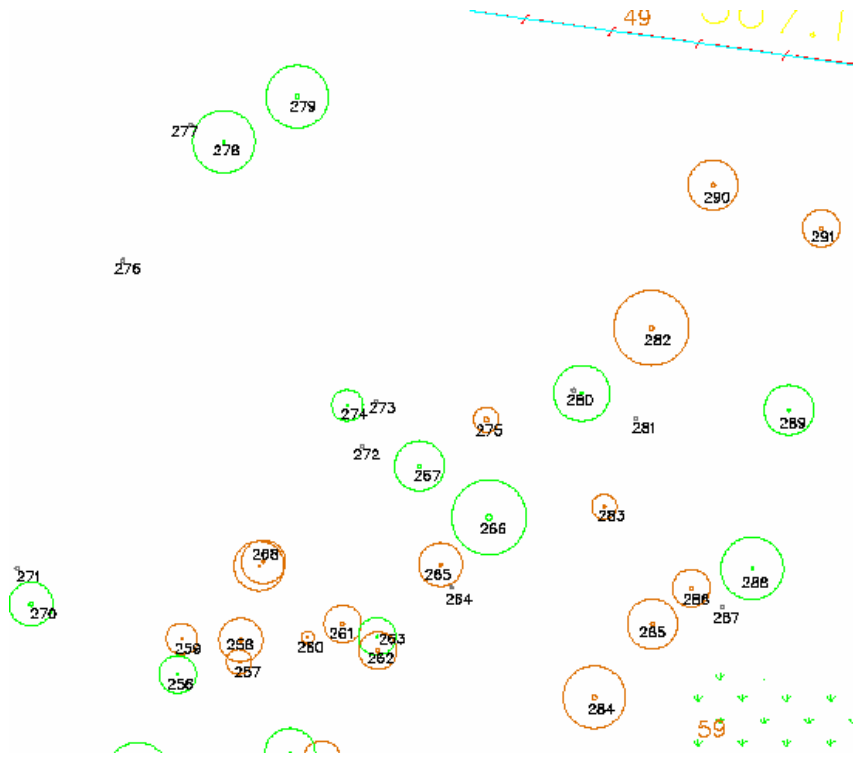


Appendix 4: Tree locations Continued

Enlargement E

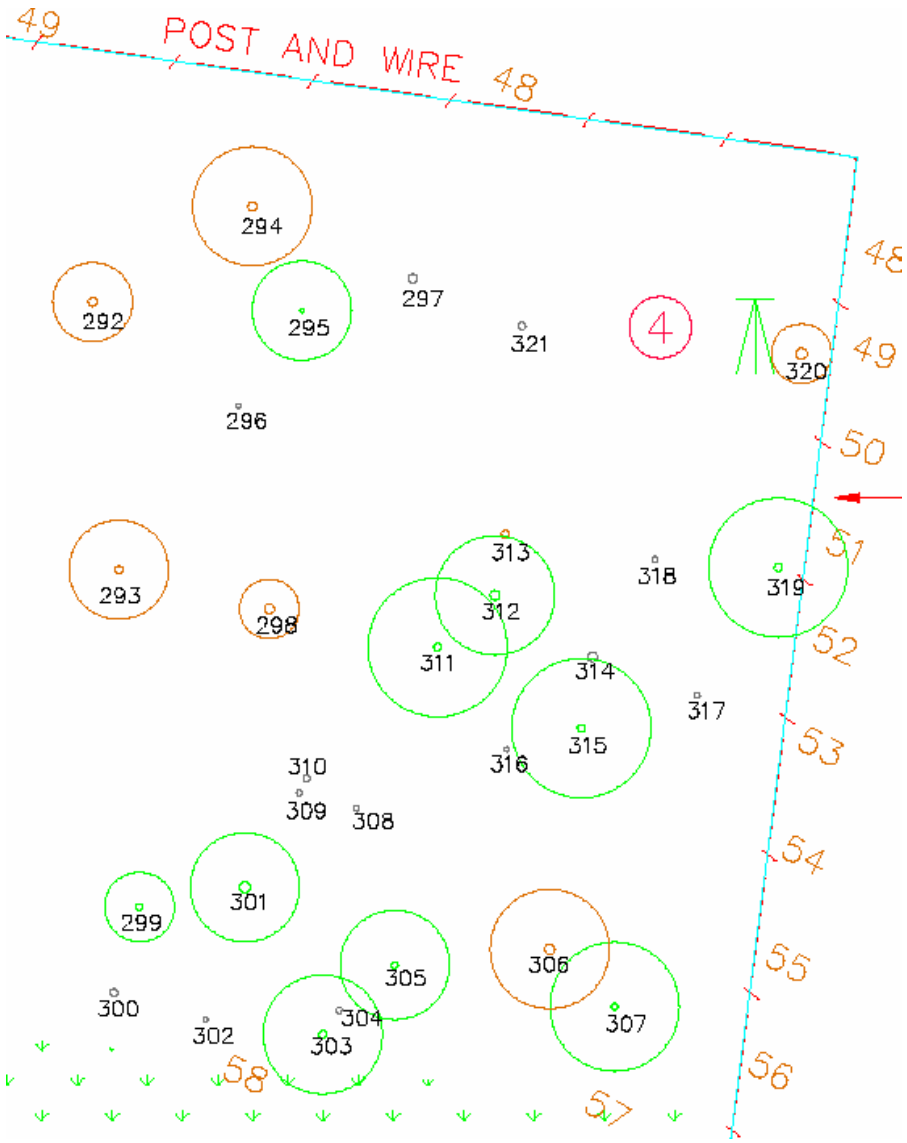


Enlargement F



Appendix 4: Tree locations Continued

Enlargement G



Appendix 5 – Tree Protection Zones and General Tree Protection Guidelines:

During the preliminary stages of the development process, the constraints and opportunities of the site are usually reviewed. The existing trees on the site may be classified within either one of these categories but this would depend on many factors. The condition of the trees, the types of trees present and their location on the site are a few of the issues that may be considered when assessing what trees may be retained.

Ultimately, some or all of the trees may be retained or removed and the decision to retain trees can and may restrict the scope of the development; consequently, trees will quite often be considered a constraint. However, trees with space to grow and develop can contribute significantly to the appearance and value of a completed development.

The successful retention of trees on any particular site will require the commitment and understanding of all parties involved in the development process with continuity throughout the duration of the project. The most important activity, after determining the trees that will be retained is the implementation of a Tree Protection Zone.

The intention of the tree protection zone is to:

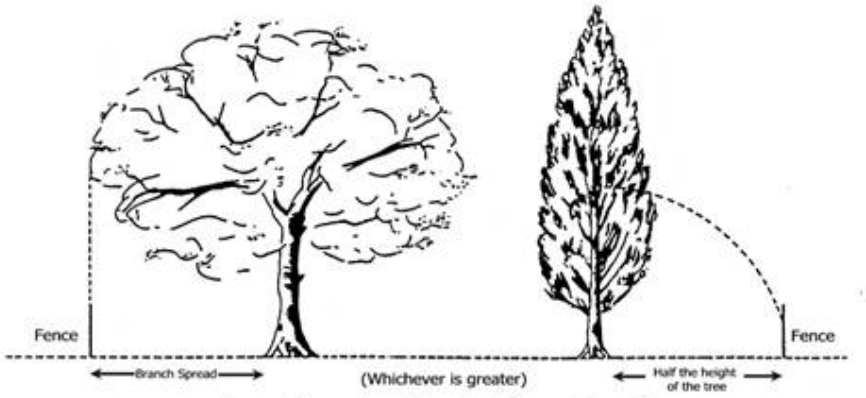
- Provide a safe tree resource.
- Provide adequate root space to sustain the health, aesthetics and stability of the tree/s into the future.
- Minimise changes to the tree's growing environment. This is particularly important for mature specimens.
- Minimise physical damage and loss to the tree root system, canopy and trunk.

Root damage can occur from many activities that occur on a development site. The most common activities associated with root damage include footing preparation (particularly strip footings), site cuts to achieve level changes and service pipe installation. Any activity that results in changes to the soil profile can theoretically harm the health and stability of trees.

Tree protection zones (TPZ) are difficult to establish on individual trees due to the nature and unpredictability of root growth, the different species and their tolerances and the perceived and unperceived changes to the trees growing environment. The most accurate means of determining the location of roots is to excavate by hand or by using air spade technology (In areas close to the tree that may be encroached by proposed construction). However, this is impractical logistically and financially in most circumstances, especially when more than a few trees are under threat from construction issues.

A general system of assigning tree protection zones and fencing is necessary to assist planning for construction and development. A number of systems are available with the more recognised methods utilising the trunk diameter of an individual tree as the basis to establish the clearance distance. The health, age and species' tolerance may also be factored into the establishment of the zone using these systems. The British Standard (5837-1991) Guide for Trees in relation to construction contains such a method and a modified version of this system is included in Matheny & Clark (1998) Trees & Development: A Technical Guide to Preservation of Trees during Land Development. Both systems are considered suitable for establishing Tree Protection Zones and tree protection fencing distances.

However, an alternative method is put forward in The British Standard (5837-1991) Guide for Trees in relation to construction, which is simpler and more easily interpreted when plans are viewed and site visits are conducted. The diagram presented on the next page illustrates the method.



Location for Protection Fencing

Adapted from BS 5837:1991

The method presented above provides the tree protection zone and the tree protection fencing distance by using the width of the canopy or half the height of the tree, whichever is greater. This method generally provides clearance distances that are easily understood and realistic for many reasons. There is some scope to encroach the distances generated by this method with certain provisions issued by a suitably qualified arborist.

The literature supporting this method begins with The British Standard (5837-1991) Guide for Trees in relation to construction, which is a recognised and adopted standard. Australia does not yet have such a standard and indications are that large parts of the British Standard may be adopted for the Australian standard. Matheny & Clark (1998) suggest and Harris (1999) states 'A commonly used limit for the tree protection zone is the dripline' (Tattar, 1989; Bernatzky, 1978). Harris (1999) goes further and claims that this could result in the loss of over 50% of the tree's root system but most vigorous, broad canopied trees survive well if the area within the dripline is protected. Helliwell (1985) also indicates that a healthy vigorous tree will withstand the removal of up to 50% of its roots without dying.

The alternative British Standard method for calculating tree protection zones fits well with much of the literature on calculating water requirements and soil volumes for trees. Watson & Himelick (1997) suggest, as a general guide, that root space should be approximately 1.0^3 to every square metre of projected crown area. This equates to allowing a soil depth of 60 cm deep in the area that is within the dripline of the canopy for root growth. This is supported in part by the notion that fine root density is usually greater beneath the canopy than beyond (Gilman, 1997).

The alternative British Standard method for calculating tree protection zones also suggests that the zone may be encroached by one third on one side of the tree only. If this occurs, the provision of a one third increase in clearance distance in all other directions is required. Alternative means for encroachment into the tree protection zone is only limited by the imagination of engineers. The preservation of the natural soil profile beneath the canopy is the primary objective. Modified construction or building techniques have been used with success to preserve the area in the tree protection zone and include but are not limited to pier & beam footings, pier type footings, cantilevered slabs, waffle slabs and above natural grade construction with porous paving.

The method employed in this document for assigning tree protection zones is a guide for planning purposes. The method assumes a generally symmetric root system radiating from the trunk outwards. It does not address trees that may be growing in close proximity to obstructions because the root growth pattern of these trees may be significantly altered. In instances where it is known that the root system is not symmetrical, the tree protection zone should be established independently but with guidance from the method. Furthermore, significant trees and over-mature trees may require additional clearance space to minimise the impacts of construction works and to maximise the preservation of the root system.

Any activity that involves trenching or excavation within the tree protection zone has the potential to destabilise the tree. The closer that the excavation or trenching occurs to the trunk of the tree, the greater the potential risk for tree failure. On this basis, all construction works that are proposed in the tree protection zone should be approved by the site arborist.

References

Bernatzky, A. 1978, Tree Ecology and Preservation. New York: Elsevier Publishing.

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Gilman, E. F. 1997, Trees for Urban and Suburban Landscapes Delmar.

Harris, R.W, Clark J.R. & Matheny N.P. 1999, *Arboriculture: Integrated Management of Landscape Trees, Shrubs and Vines*, Third Edition, Prentice - Hall, New Jersey.

Helliwell, D.R. 1985, *Trees on Development Sites*. Arboricultural Association UK.

Matheny, N. & Clark, J.R. 1998 *Trees and development – A technical guide to preservation of trees during land development.* International Society of Arboriculture, Publishers.

Tattar, T.A. 1989, *Diseases of Shade Trees*, 2nd ed. San Diego: Academic Press.

Watson, G. W. & Himelick, E. B. 1997, *Principals and Practices of Planting Trees and Shrubs.* International Society of Arboriculture.

General tree protection guidelines

These recommendations are to apply for tree protection both during demolition of existing buildings and any future developments.

The protection and preservation of the existing trees on a development site will require various works to be undertaken but by far the most important issue is that of Tree Protection Zones and the actual Tree Protection Fences.

The Tree Protection Zones will be determined by the consulting arborist in conjunction with the Site Manager and the Tree Protection Fences will be constructed along these lines.

Generally most vigorous, broad canopied trees survive well if the area within the dripline of the canopy is protected (Matheny & Clark, 1998). Fine root density is usually greater beneath the canopy than beyond (Gilman, 1997).

If few to no roots over 3cm in diameter are encountered and severed during excavation the tree will probably tolerate the impact and root loss. For many tree species, it is possible to encroach some distance within the canopy dripline without extensive damage to the tree. A healthy tree can sustain a loss of between 30% and 50% of absorbing roots (Harris, Clark, Matheny, 1999). Under certain circumstances and in the absence of other construction impacts, vigorous trees may be able to tolerate and recover from trenching within the root zone (Watson, 1998).

The actual fence specifications should be a minimum of 1.2 - 1.5 metres of chain mesh or like fence with 1.8 meter star pickets every 3-4 metres and a top line of high visibility plastic hazard tape. This fence will deter the entry of heavy equipment and vehicles and also the entry of workers and/or the public into the Tree Protection Zone.

These fences should only be removed or shifted by the consent of the consultant arborist or site manager.

The area inside this Tree Protection Zone should be mulched with a covering of approximately 100mm of woodchip mulch or like material.

These items need to be carried out to minimise the compaction of the soil profile within the tree protection zone.

If temporary access is required through a Tree Protection Zone this may be carried out using sheets of heavy plywood or like protection but should not be considered for long term requirements.

The following are guidelines that must be implemented to minimise the impact of the proposed construction works on the existing tree.

- The Tree Protection Zone is fenced and clearly marked at all times (according to the specification above).
- The consultant arborist is on-site to supervise all excavation works around the existing trees. This is more paramount if substantial roots (i.e. > 100 mm ∅) are encountered and may require pruning.

Inspection will need to take place by a qualified arborist to ascertain impact on the trees and recommend follow up works if required.

- A layer of organic mulch (woodchips) to a depth of 100mm (no deeper) should be placed over all root systems (not just in the Tree Protection Zones) of trees which are to be retained to assist with moisture retention and to reduce the impact of compaction. This is particularly important where there will be constant construction vehicle traffic.
- No persons, vehicles or machinery are to enter the Tree Protection Zone without the consent of the consulting arborist or site manager.
- Any underground service installations should be bored and utility authorities should common trench where possible.
- No fuel, oil dumps or chemicals shall be allowed in or stored on the Tree Protection Zone and the servicing and re-fuelling of equipment and vehicles should be carried out away from the root zones.
- No storage of material, equipment or temporary building should take place over the Tree Protection Zone of any tree.
- Nothing whatsoever should be attached to any tree including temporary services wires, nails, screws or any other fixing device.
- Supplementary watering should be provided to all trees through any dry periods during and after the construction process.
- Any pruning that is required must be carried out by trained and competent arborist who has a thorough knowledge of tree physiology and pruning methods and carry out pruning to the Australian Standard – AS 4373 – 1996 Pruning of Amenity Trees.

All root excavation should be carried out by hand digging or with the use of 'Air-Excavation' techniques, and roots should be severed by saw cutting or with a sharp axe and not with a Backhoe or any machinery or blunt instrument. If backhoes are required to excavate near trees the bucket should be orientated to work radially from the trunk rather than across the root plate. This will avoid tearing the roots back up towards the trunk

Arboricultural Consultancy
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Tree Logic Pty Ltd, Dwelling 4, 21 Eugene Terrace, Ringwood 3134

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2. Tree Logic Pty Ltd assumes that any property or project is not in violation of any applicable codes, ordinances, statutes or other local, state or federal government regulations.

3. Tree Logic Pty Ltd has taken care to obtain all information from reliable sources. All data has been verified insofar as possible; however Tree Logic can neither guarantee nor be responsible for the accuracy of the information provided by others not directly under Tree Logic's control.

4. No Tree Logic employee shall be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services.

5. Loss of this report or alteration of any part of this report not undertaken by Tree Logic Pty Ltd invalidates the entire report.

6. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by anyone but the client or their directed representatives, without the prior consent of the Tree Logic Pty Ltd.

7. This report and any values expressed herein represent the opinion of Tree Logic's consultant and Tree Logic's fee is in no way conditional upon the reporting of a specified value, a stipulated result, the occurrence of a subsequent event, nor upon any finding to be reported.

8. Sketches, diagrams, graphs and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural drawings, reports or surveys.

9. Unless expressed otherwise: 1) Information contained in this report covers only those items that were covered in the project brief or that were examined during the assessment and reflect the condition of those items at the time of inspection; and 2) The inspection is limited to visual examination of accessible components without dissection, excavation or probing unless otherwise stipulated.

10. There is no warranty or guarantee, expressed or implied by Tree Logic Pty Ltd, that the problems or deficiencies of the plants or site in question may not arise in the future.

11. All instructions (verbal or written) that define the scope of the report have been included in the report and all documents and other materials that the Tree Logic consultant has been instructed to consider or to take into account in preparing this report have been included or listed within the report.

12. To the writer's knowledge all facts, matter and all assumptions upon which the report proceeds have been stated within the body of the report and all opinion contained within the report have been fully researched and referenced and any such opinion not duly researched is based upon the writers experience and observations.

13. This report is designed to be read and interpreted in its entirety and the author takes no responsibility for conclusions drawn on partial appraisal of the document.